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WEST LAFAYETTE, INDIANA 47906

Technical Data

EVERLUBE 620C QPL 1762-V

HEAT CURE CORROSION RESISTANT SOLID FILM LUBRICANT

Everlube 620C is now an approved product under MIL-L-8937B which requires corrosion protective capabilities. This solid film lubricant is not only designed to reduce wear and prevent galling and seizure of metals but also to provide resistance to heat, high humidity and corrosive atmospheres such as salt spray.

Concerning the extreme condition such as corrosion, Everlube 620C has been exposed to over 1-year "Simulated Flight Deck Environment". This 1-year exposure included cycling every 24 hours as follows.

1) 19 1/4 hours: Marine atmosphere (Ocean City, N.Y.).

2) Heat - 2 hours - subjected to intermittent hot air blast (400°F) total duration of 20 minutes exposure in 2 hour period.

3) Simulated deck exposure to aircraft cleaning solutions, wetting with a mixture of 2 cleaning compounds (MIL-C-43616 and MIL-C-25769) that are used on carrier aircraft.

4) Simulated deck washdown scrubbing with Jet Fuel (JP-5) detergent (MIL-D-16791E Ty. II).

5) Seawater spray 2 hours.

6) Acidified seawater spray (8% H_2SO_3 by weight). Spray to simulate SO_2 stack gas reaction, with seawater on Flight Deck forming dilute sulphurous acid; 15 minutes duration every 24 hours.

Salt Spray Resistance - 500 hours corrosion salt spray resistance per test requirements of MIL-L-8937B and Federal Test Method Standard 791, Method 4001.

Aluminum Corrosion Resistance - Everlube 620C, when exposed to the high humidity conditions of ASTM Method D2649 for 1000 hours, shows no signs of corrosion.

(see over)

Fluid Resistance - Everlube 620C does not soften, lift, blister, crack nor peel and exhibits excellent adhesion after 72 hour immersion at room temperature on anodized aluminum panels in the following fluids:

TABLE I. RESISTANCE TEST FLUIDS

Fluid	Specification
Standard test fluids, hydrocarbon	TT-S-735, type II
Gasoline, aviation	MIL-G-5572, grade 115/145
Hydraulic fluid, petroleum	MIL-H-5606
Turbine fuel	MIL-T-5624, grade JP-4
Lubricating oil; aircraft piston engine	MIL-L-22851, type II
Lubricating oil, aircraft turbine engine, synthetic base	MIL-L-23699
Hydraulic fluid - nonpetroleum base	MIL-H-8446
Damping fluid, silicone base (dimethyl polysiloxane)	VV-D-1078
Trichloroethylene, technical	O-T-634
Anti-icing fluid	MIL-A-8243

Laboratory No. 112902
Sample: Everlube 620C Lubricant
Received: Nov. 5, 1972 DATE: 11/30/72
Submitted by: Laboratory MARKED: Panels 4130 Steel

SALT SPRAY TEST REPORT

1. TEST SPECIFICATION, FED. STD. 151A, METHOD 811.1
2. TEST CONDITIONS
   a. Salt Solution Concentration, % 20%
   b. Type Salt and Water Salt Flake Butter Grade
      Distilled Water
   c. Temperature or Exposure Zone 96°F
   d. Tests on Contents of Fog Collecting Device
      (1) Volume of Salt Solution, ML per hour per 80 sq. cm. area 1.6
      (2) Salt Solution, specific gravity 60/60°F 1.140
      (3) pH of Collected Salt Solution at 95°F 7.0
   e. Type Specimen 3" x 6" x 0.040" MIL-S-18729 4130 Steel
   f. Method Support in Chamber Plastic 15° from vertical
   g. Specimen Preparation Gritblast, phosphate coating MIL-P-16232D Ty. M
   h. Exposure period 564 hrs. to failure
3. TEST RESULTS.

Two specimens were coated with Everlube 620C to a dry film thickness of 0.0004".

Specimen	#1	#2
500 hrs.	One rust spot	Two rust spots
548 "	Two " "	Four " "
564 "	Four " "	Several rust spots